KRU, I.G.; MEDRUSH, Ye.A.

Management of pregnancy, labor and the postnatal period in patients with rheumatic heart defects. Zdrav.Belor. 5 no.8:33-35 Ag '59. (MIRA 12:10)

1. Iz terapevticheskogo otdeleniya Brestskoy oblastnoy bol'nitsy (glavnyy vrach V.G.Tishchenko) i rodil'nogo otdeleniya Brestskogo roddoma (glavnyy vrach I.F.Koroleva).
(RHEUMATIC HEART DISEASE) (LABOR (OBSTETRICS))

KRU, I.G.

Method for dispensary treatment of therapeutic patients. Zdrav. Bel. 7 no.5:41-42 My '61. (MIRA 14:6)

1. Glavnyy terapevt Brestskogo oblzdravotdela.
(BREST—DISPENSARIES)

KHUASHVILI, G. D.

Bacterial knot of oleander caused by Pseudomonas savastanoi v. nerii Smith. Zashch. rast. ot vred. i bol. 5 no.10:44-45 O '60. (MIRA 16:1)

1. Starshiy fitopatolog Abkhazskoy karantinnoy laboratorii.

(Oleander—Diseases and pests) (Pseudomonas)

KRUBAN, K., prof., inz., dr., Dr. Sc.

"Reinforced concrete constructions" by K. V. Sachnovskij. Reviewed by K. Hruban. Inz stavby 10 no. 2:77-78 F '62.

KRUBERG, YU. K.

20615 KRUBERG, YU. K. Opyt ?gra lcheskogo izobrazheniya smeny generatsii vodorosley i didakticheskogo ispol'zovaniya etikh izobrazheniy. (Pril:«Skhemy cheredovaniya generatsii i zelenykh, burykhi bagryanykh vodorosley»). Uchen. zapisk. (Leningr. gos. ped. in-t im. Gertsena), t. LXXXII, 1949, s. 3-14, - Bibliogr: 10nazv.

SO: LETOPIS ZHURNAL STATEY - Vol. 28 - Moskva - 1949

KRUBERG, Yu. K

BYSTROV, A.A.; KRUBERG, Yu.K.

[Illustrated school guide to the classification of plants; a manual for students in secondary schools] Illiustrirovannyi shkol'nyi opredelitel' rastenii. Posobie dlia uchashchikhsia srednei shkoly. Pod red. B.K. Shishkina. Izd. 3, ispr. i dop. Leningrad, Gos. ucheb.-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie, 1951. (MLRA 10:4)
290 p.
(Botany--Classification)

KRUBERG, YU. K.

Phenology

Useful textbook on phenology ("Phenological observations in gardens and parks." A. A. Golovach. Reviewed by Yu. K. Kruberg.) Est. v Shkole No. 3, 1952.

9. Monthly List of Russian Accessions, Library of Congress, September 1952 Uncl.

1. YU. K. KAUBERG, A. A. BYSTROV

2. USSR (600)

4. Botany

7. Guide to plants ("Illustrated guide to plans for schools.". Reviewed by Prof. V. V. Alpatov). Priroda 42 no. 1. 1953.

9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

GORDEYEVA, Tamara Nikolayevna; ZAVALISHINA, Sofiya Fedorovna; KRUBERG, Yuliy Karlovich; PIS'YAUKOVA, Vera Vasil'yevna; STRELKOVA, Ol'ga Stepanovna; GURDZHIYEVA, A.M., tekhnicheskiy redaktor

[Summer field work in botany; mamual for pedagogical institutes] Letniaia polevaia praktika po botanike; posobie dlia pedagogicheskikh institutov. Leningrad, Gos. uchebno-pedagog. izd-vo Ministerstva prosveshcheniia RSFSR, Leningradskoe otd-nie, 1954. 285 p. (MLRA 8:7)
(Botany--Field work)

KRUBERG, Yu.K.

Observations on the development of vegetation in the reservoir of the Vyritsa Electric Power Plant. Uch. zap. Ped. inst. Gerts. 178:49-61 '59. (MIRA 14:7)
(Vyritsa Reservoir--Aquatic plants)

KRUC, S., dr; KOWALSKI, T., dr.

Organization of medical teams for rural antituberculous campaign; remarks in discussion. Zdrowie pub.,Warsz.no.3:234-236 May-June '55.

(TUBERCULOSIS, prevention and control
in Poland, med.teams for rural campaign)
(RURAL CONDITIONS
in Poland, med.teams for antituberculosis campaign)

BIJKO, Vladislav; BIJKO, Stanislawa; MICHALOWICZ, Roman

Pleural chylothorax in a child with lymph node tuberculosis.
Pediat. Pol. 39 no.8:961-96[illegible] Ag '64

1. Z Kliniki Terapii Chorob Dzieci Akademii Medycznej w Warszawie (Kierownik: prof. dr. med. M.H.Zapasnik-Kobierska).

SUNTSOV, A.G., dotsent; KRUCH, A.D., subordinator.

X-ray diagnosis of osteochondrosis of the corpus vertebrae (Calvé's disease) Vest.rent. i rad. no.3:73-77 My-Je '55. (MLRA 8:10)

1. Iz kafedry propedevtiki vnutrennikh bolezney (zav.prof. Kh.I. Vaynshteyn) Chelyabinskogo meditsinskogo instituta (dir.prof. G.D. Obraztsov)

(SPONDYLITIS,
vertebra plana, x-ray diag.)

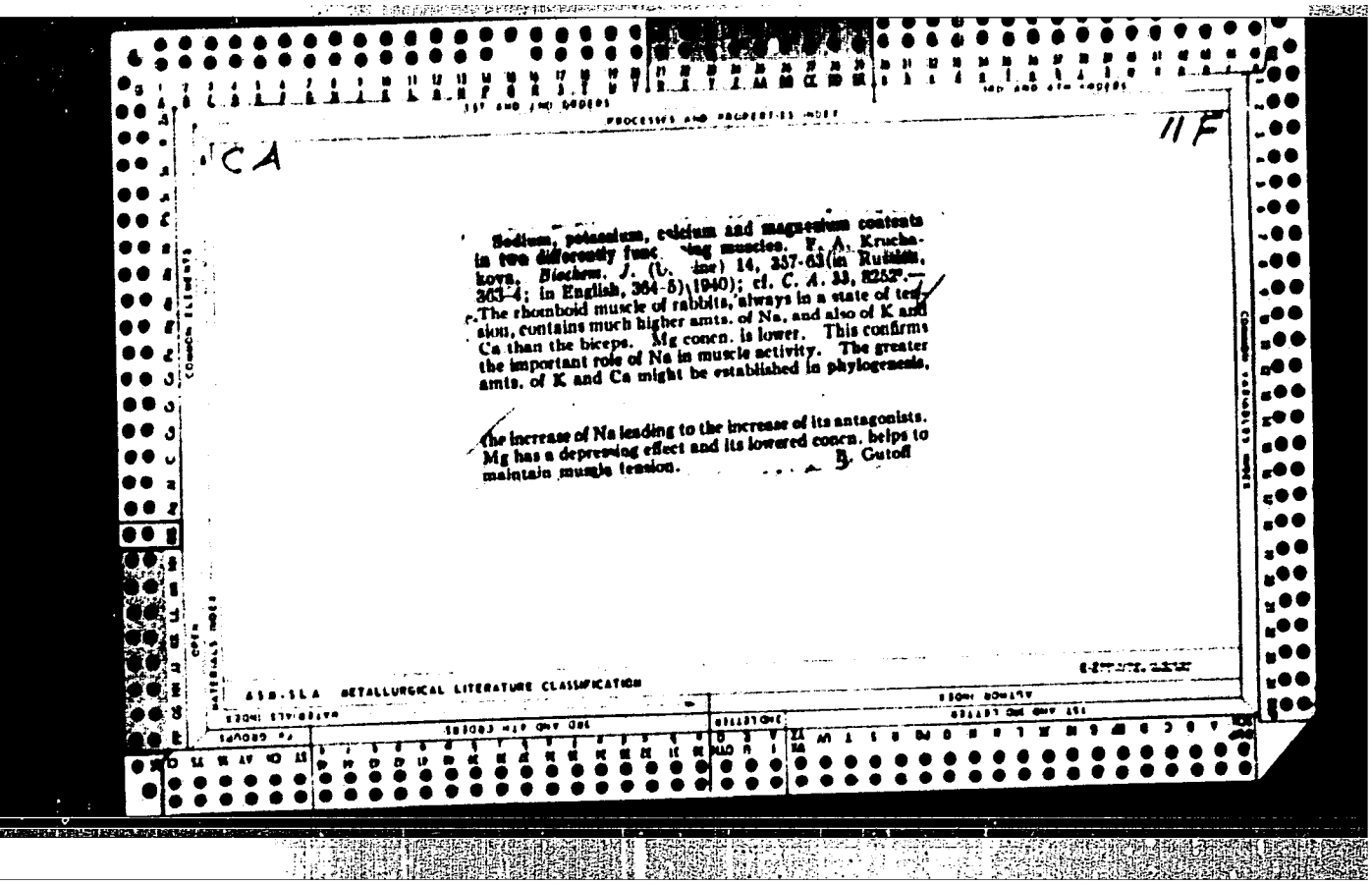
KRAUSKOPF, Jaroslav; MAREK, Jan; KRUCH, Rudolf

2 Cases of photosensitization after aureomykoin. Cesk.derm.34 no.6:383-385 D '60.

1. Kozni oddeleni OUNZ v Chebu. Vojensky lazensky ustav ve Frantiskovych Laznich.
(CHLORTETRACYCLINE toxicol)
(DERMATITIS MEDICAMENTOSA)
(PHOTOSENSITIZATION)

Effect of functional changes in muscles on their sodium, potassium, calcium and magnesium contents. L. A. Kruchakova. *Biochem. J.* (Ukraine) 12, 311-31 (in Russian, 312-3; in English, 334-5)(1938). As compared with resting muscle, the Na, Ca and Mg contents of trained muscle (rabbit biceps femoris) are higher, and the K content is lower, while in fatigued muscle the K content is also higher (less so for trained than for untrained muscles).
B. C. P. A.

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION



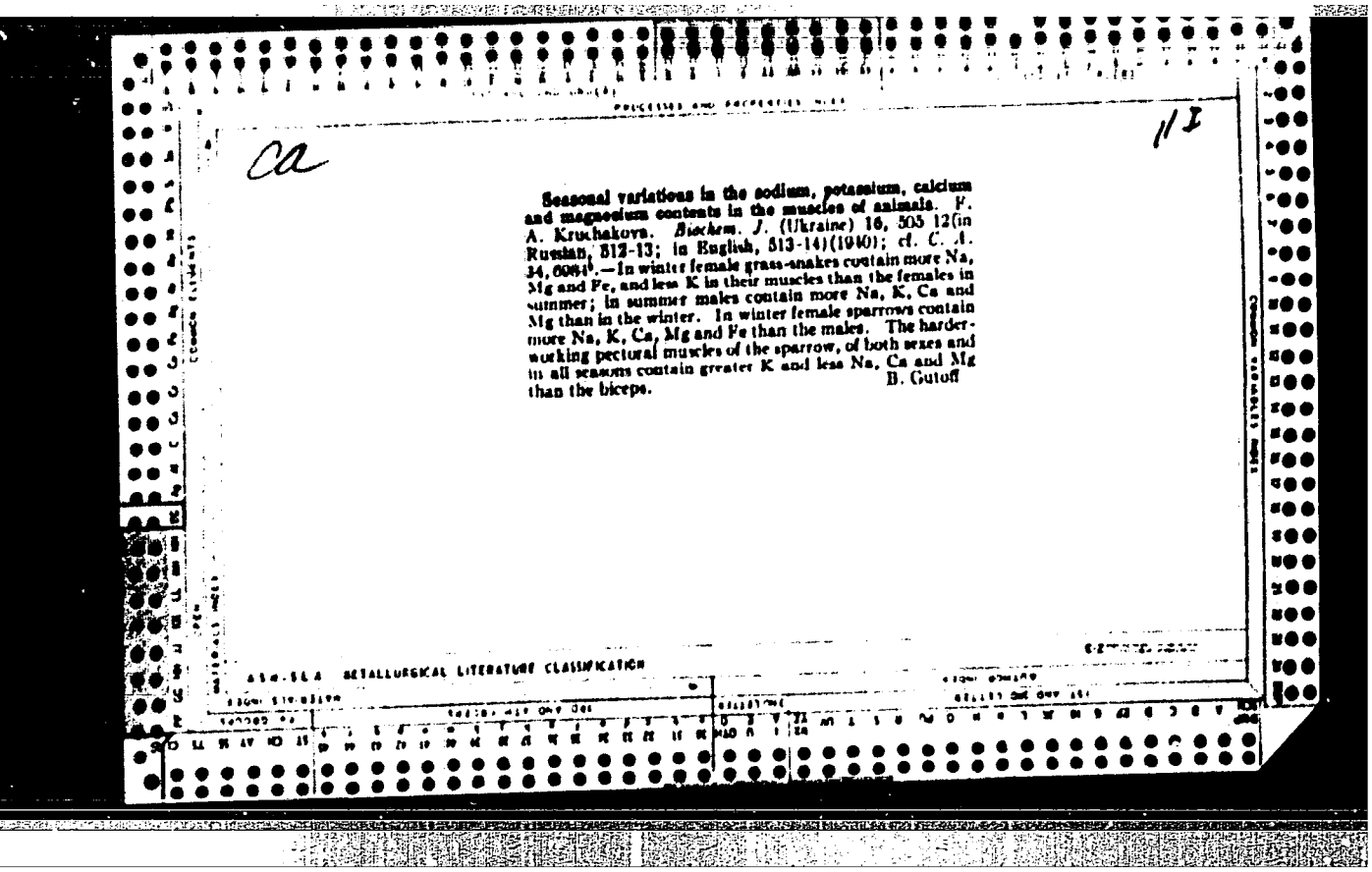
CA

11F

Sodium, potassium, calcium and magnesium contents in two differently func[illegible]ing muscles. F. A. Kruchakova, *Biochem. J.* (U. [illegible]SR) 14, 357-63 (in Russian, 363-4; in English, 364-5) (1940); cf. *C. A.* 33, 8252.—The rhomboid muscle of rabbits, always in a state of tension, contains much higher amts. of Na, and also of K and Ca than the biceps. Mg concn. is lower. This confirms the important role of Na in muscle activity. The greater amts. of K and Ca might be established in phylogenesis.

The increase of Na leading to the increase of its antagonists. Mg has a depressing effect and its lowered concn. helps to maintain muscle tension. B. Gutoff

A58-SLA METALLURGICAL LITERATURE CLASSIFICATION

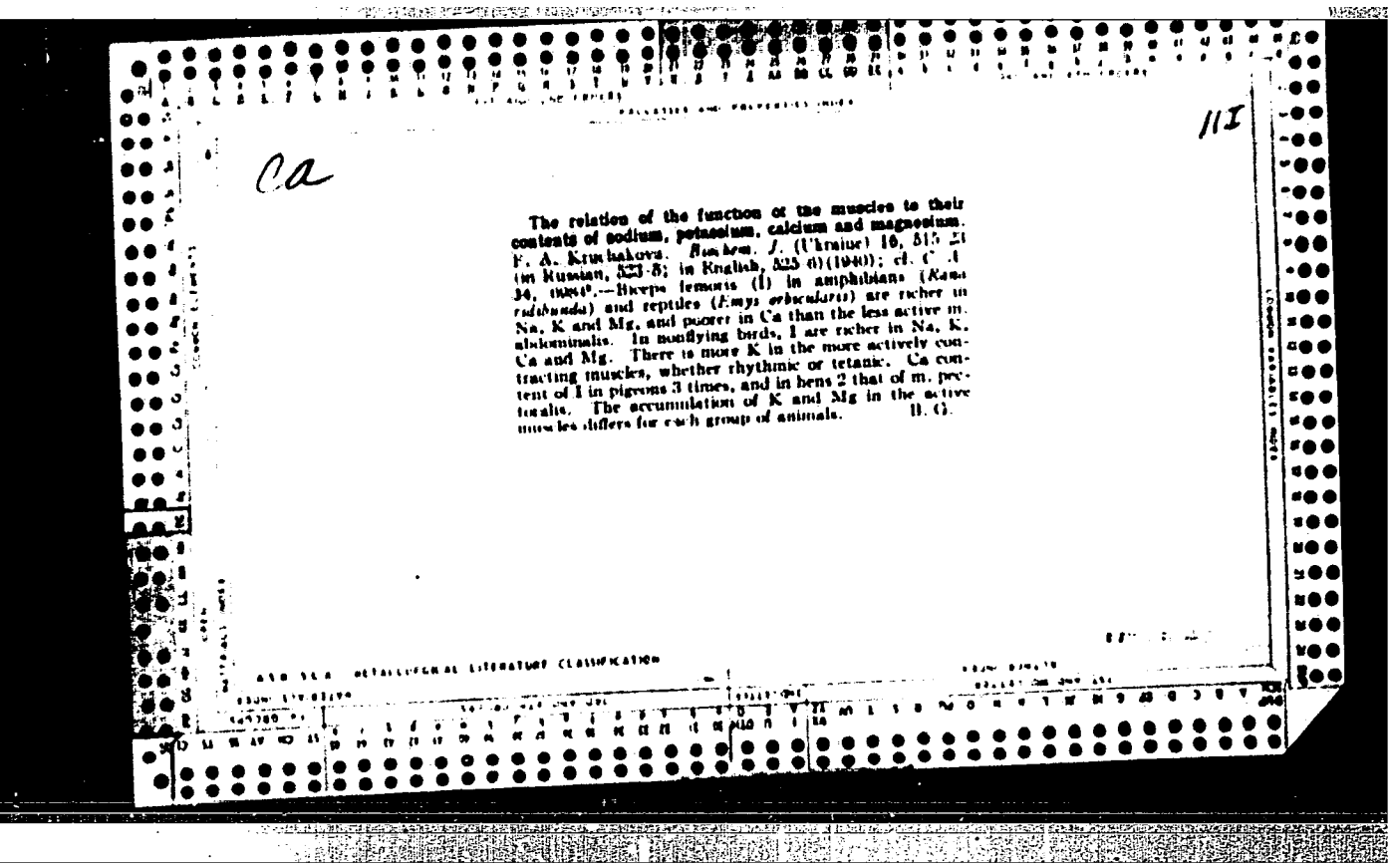


ca

11 I

Seasonal variations in the sodium, potassium, calcium and magnesium contents in the muscles of animals. F. A. Kruchakova. *Biochem. J.* (Ukraine) 16, 505 12(in Russian, 512-13; in English, 513-14)(1940); cf. *C. A.* 34, 6084[6].—In winter female grass-snakes contain more Na, Mg and Fe, and less K in their muscles than the females in summer; in summer males contain more Na, K, Ca and Mg than in the winter. In winter female sparrows contain more Na, K, Ca, Mg and Fe than the males. The harder-working pectural muscles of the sparrow, of both sexes and in all seasons contain greater K and less Na, Ca and Mg than the biceps.

B. Gutoff



Ca

III

The relation of the function of the muscles to their contents of sodium, potassium, calcium and magnesium. F. A. Kruchakova. *Biokhim. Zhur.* (Ukraine) 10, 515-21 (in Russian, 523-8; in English, 525-6)(1940); cf. C. A. 34, 1084⁶.—Biceps femoris (I) in amphibians (*Rana ridibunda*) and reptiles (*Emys orbicularis*) are richer in Na, K and Mg, and poorer in Ca than the less active m. abdominalis. In nonflying birds, I are richer in Na, K, Ca and Mg. There is more K in the more actively contracting muscles, whether rhythmic or tetanic. Ca content of I in pigeons 3 times, and in hens 2 that of m. pectoralis. The accumulation of K and Mg in the active muscles differs for each group of animals. H. G.

The sodium, potassium, calcium, magnesium, and iron content of fish muscles and an invertebrate of the Black Sea. F. A. Kruchakova (Acad. Sci. Ukr. S.S.R., Kiev). *Trudy Karadag. Biol. Sta., Akad. Nauk Ukr. S.S.R.* 1952, No. 12, 111–15.—The following fish were studied: *Mullus barbatus ponticus, Trachurus trachurus, Crenilabrus quinquemaculatus, Scorpaena porcus, Uranoscopus scaber, Gobius melanostomus, Blennius sanguinolentus*. Data in mg. % for moist back muscle (I) the range was Na 28.9–52.8, K 200.5–500.8, Ca 8.3–27.9, and Mg 22.7–49.5. For moist tail muscle (II) the range was Na 43.2–85.6, K 423.6–597.3, Ca 5.9–37.3, and Mg 30.1–60.0. For moist jaw muscle (III) the range was Na 43.6–63.6, K 439.1–648.5, Ca 11.2–32.8 and Mg 21.1–35.7. The moisture content varied from 75.0 to 88.0%. In dry muscle the Fe varied from 0.02 to 5.6 mg. %. It is concluded that II which contracts more than I has more Na and K. Not much difference between species except III of predatory fish contain more Na and K. For the mussel *Mytilus galloprovincialis*, the contracting muscle has more Ca (40.1–29.5 mg. %) and Mg (46.3–39.0), and less Na (131.5–137.0) and K (270.9–302.0) than the relaxed muscle.

Eugenia Sokoloff

KRUCHAKOVA, F.A.

The alkali, alkaline earth metal, and iron content of the muscles of some Black Sea fishes and invertebrates. Trudy Karad.biol.sta.no.12: 111-115 '52. (MLRA 9:9)

(BLACK SEA--MARINE FAUNA) (METALS IN THE BODY)
(MUSCLE)

VAYSMAN, S.B., KRUCHAKOVA, F.A.

Methods for obtaining a preparation of an iron-ascorbic acid complex. Vitaminy no.1:158-165 '53 (MIRA 11:6)

1. Biokhimicheskaya laboratoriya Nauchno-issledovatel'skogo instituta pitaniya Ministerstva zdravookhraneniya USSR i Kafedra biokhimii Kiyevskogo meditsinskogo stomatologicheskogo instituta, Kiyev.
(ASCORBIC ACID)
(IRON SULFATE).

KRUCHAKOVA, F.A.

Effect of complex iron compounds on the accumulation of ascorbic acid in animal tissues. Vitaminy no.1:208-211 '53 (MIRA 11:7)

1. Biokhimicheskaya laboratoriya Nauchno-issledovatel'skogo instituta pitaniya Ministerstva zdravookhraneniya USSR, Kiyev.
(IRON IN THE BODY)
(ASCORBIC ACID)

Effect of complex iron compounds on the accumulation of ascorbic acid in tissue of live organisms. P. A. Kruchakova. *Vitaminy, Izdatel'stvo Akad. Nauk Ukr. S.S.R., Kiev.* 1, 208-11(1953); *Referat. Zhur., Khim.* 1954, No. 16502.—Two lots of guinea pigs were maintained on a ration of oats, hay, and beets. In addn. one of the lots was fed for 10 days 60 mg. of a prepn. contg. 28 mg. ascorbic acid and 9 mg. of Fe, while the second lot was fed daily 28 mg. ascorbic acid. This was followed by 10 days of ordinary ration. Then the animals were killed and the content of free and combined ascorbic acid was detd. in the spleen, mucous membrane of the intestines, liver, kidneys, and suprarenal gland. Most of it was found in animals fed the Fe-ascorbic acid complex. From this is concluded that this complex is more suitable for supplying vitamin C to the organism than is ascorbic acid alone.
M. Hoseh

KRUCHAKOVA, F. A.

Methods of preparation of iron-ascorbate complex. S. Ff. Vafaman and F. A. Kruchakova. *Vitaminy, Akad. Nauk Ukr. S.S.R.* I, 165-86(1954). *Referat. Zhur., Khim.* 1954, No. 10788.—The existing methods of prepn. of Fe ascorbate were tested and a new simplified method is outlined. Clinical testing of the Fe ascorbate prepd. by the new method gave pos. results.
M. Hosch

MET

The eff[illegible] [illegible] on the accumulation of ascorbic acid in cabbage juice on the accumulation of ascorbic acid in tissues of animal organisms. F. A. Kruclakova (Ukrain. Biokhim. Zhur. 21, 59-71(in Russian, 1949)). [illegible] simultaneous introduction into the organism of Fe salts and ascorbic acid (I) increases the content of com- bined and free I in the tissue to an extent gr[illegible] than does the introduction of I alone. Such content is further increased in exptl. animals following the admin- tration of a synthetic prepn. of ferro-ascorbic acid (II) and the period of its retention is prolonged. The effect of ad- ministration of vitamin C of cabbage juice to guinea pigs was also studied. The administration to guinea pigs of II in different doses leads to an accumulation of free I in the liver, spleen, intestinal mucosa, kidneys and suprarenals, to a degree impossible to attain with cryst. I. The [illegible] lation of combined I is even greater. Analogous results were obtained by prolonging the period of administration of I and II. This is particularly true of II. In the case of I a max. [illegible] attained which cannot be exceeded by either further vitamin administration or by increase in the doses of administration. In the case of II the accumulation of free and combined I in the tissues rises in proportion to the extention of the period of administration or increase in the dose. Three groups of guinea pigs were given cabbage juice vitamin C as follows: Guinea pigs of group 1 received 20 ml. of cab- bage juice each, to which was added 25 mg. of synthetic cryst. I. Animals of group 2 received only I in doses vary- ing from 25 to 50 mg. daily. Animals of group 3 received 60 mg. of II, equiv. to 25 mg. of I. Vitamin administra- tions were supplemental to the daily ration. Cabbage juice vitamin C [illegible] higher levels in the guinea pig than does I, being 40-[illegible]% higher in the case of free I and [illegible]% higher in the case of combined I. Similar results were ob- tained with the administration of II; this makes cabbage juice and II of equal value. B. S. Levine

KRUCHAKOVA, F. A.

"The Effect of Ascorbic Acid on the Rate of the Inclusion of Radioactive Iron (Fe^{59}) Into the Fraction of Mineral Iron of Guinea Pig Tissues," by F. A. Kruchakova, Opyt Primeneniya Radioaktivnykh Izotopov v Meditsine (Research in Using Radioactive Isotopes in Medicine), Kiev, Gosmedizdat Ukrainian SSR, 1955, pp 51-60 (from Referativnyy Zhurnal -- Khimiya, Biologicheskaya Khimiya, No 15, 10 Aug 56, Abstract No 14423

"Guinea pigs were given Fe^{59} perorally in the form of either $Fe^{59}Cl_3$ or a complex of Fe^{59} with ascorbic acid. More Fe^{59} was detected in the organs of both healthy and scorbutic guinea pigs when administered in the complex form. Administration of Fe^{59} complex with vitamin C caused the rate of renewal of the mineral fraction of iron in the "gelatopoietic" tissues of scorbutic guinea pigs to be significantly greater than in healthy animals. This difference was not detected after the administration of $Fe^{59}Cl_3$. The rate of the inclusion of Fe^{59} into the tissues of the liver, intestinal mucosa, and suprarenals was two to four times higher in the avitaminic rats than in the healthy ones regardless in which form the Fe^{59} was administered."

Sum 1239

T

Country : USSR
Category: Human and Animal Physiology. Metabolism. Water-salt Metabolism.

Abs Jour: RZhBiol., No 19, 1958, 88600

Author : Kruchakova, F.A.
Inst :
Title : The Effect of the Protein Component of the Diet on Iron Assimilation.

Orig Pub: Vopr. med. khimii, 1957, 3, No 3, 187-189

Abstract: For several days prior to their sacrifice, rats were given Fe^{59}. The greatest rate of inclusion of Fe^{59} into the tissues of the animals was noted with diets containing 40% protein, the smallest with diets containing 5%. With diets containing casein, the rate of Fe^{59}

Card : 1/2

T-9

T

Country : USSR
Category: Human and Animal Physiology. Metabolism. Water-salt Metabolism.

Abs Jour: RZhBiol., No 19, 1958, 88600

assimilation was 2-4 times greater than with diets containing the same amount of egg albumin. The difference in the effectiveness of casein and egg albumin as far as the assimilation of Fe^{59} is concerned is explained by the difference in their P content. -- N.G. Shaposhnikov.

Card : 2/2

KRUCHAKOVA, F.A., kandidat biologicheskikh nauk (Kiyev)

Biological properties of ferroascorbic acid. Vrach.delo no.8:873-875 Ag '57. (MLRA 10:8)

1. Laboratoriya biokhimii Ukrainskogo nauchno-issledovatel'skogo instituta ortopedii i travmatologii
(IRON--THERAPEUTIC USE) (ASCORBIC ACID)

KRUCHAKOVA, F.A.

Effect of dietary protein components on iron assimilation [with summary in English]. Vop.med.khim. 3 no.3:183-189 My-Je '57. (MLRA 10:8)

1. Biokhimicheskaya laboratoriya Ukrainskogo nauchno-issledovatel'skogo instituta pitaniya, Kiyev

(IRON, metab.
eff. of dietary proteins on uptake by body fluids & tissues in rats (Rus))

(PROTEINS, eff.
dietary proteins, on iron uptake by body fluids & tissues in rats (Rus))

KRUCHAKOVA, F. A.

USSR/Human and Animal Physiology - Metabolism. V-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17973

Author : F.A., Kruchakova
Inst :
Title : The Role of Ferro-Ascorbic Acid in Iron Metabolism in the Animal Organism.

Orig Pub : Ukr. biokhim. zh., 1957, 29, No 2, 145-151

Abstract : In guinea pigs on an ordinary diet 1.5 to 5.7 mg% of ferro-ascorbic acid (a complex compound) and 3.1 to 5.0 mg % of mineral iron were detected in the mucosa of the small intestine; in the spleen 6 mg% and 11 mg%, respectively, were detected, and in the liver 2.5 to 4.5 mg% and 3 to 4 mg% respectively. Ferritin was not detected in the tissues of the animals; it was found in the tissues only after the animals were given Fe preparations. When the guinea pigs were injected with a preparation of ferro-ascorbic acid or $FeCl_3$ labelled with Fe^{59}, the rate at which

Card 1/2

USSR/Human and Animal Physiology - Metabolism. V-2

Abs Jour : Ref Zhur - Biol., No 4, 1958, 17973

Fe^{59} appeared in tissue was 2 to 3 times greater in the animals which received the ferro-ascorbic acid than in those which received $FeCl_3$. It is suggested that Fe is absorbed by the tissues as ferro-ascorbic acid independently of the formation of ferritin.

Card 2/2

KRUCHAKOVA, F.A., kand.biol.nauk

Using a preparation of ferroascorbic acid in children's nutrition. Vop.okh. mat. i det. 3 no.5:49-52 S-O '58 (MIRA 11:11)

1. Iz biokhimicheskoy laboratorii (zav. - prof. B.I. Gol'dshteyn) Nauchno-issledovatel'skogo instituta pitaniya Ministerstva zdravookhraneniya USSR, Kiyev.
(CHILDREN--NUTRITION)
(ASCORBIC ACID)

KRUCHAKOVA, F.A.

Rates of incorporation of radioactive iron (Fe59) into the nuclei and cytoplasm of normal and tumor tissues [with summary in English]. Vop.med.khim. 4 no.1:15-20 Ja-F'58 (MIRA 11:5)

1. Biokhimicheskaya laboratoriya Ukrainskogo nauchno-issledovatel'skogo instituta, Kiyev.

(IRON, metabolism
binding by nuclei & cytoplasm in normal tissues & tumor tissues, comparison (Rus))
(NEOPLASMS, experimental
tumor nuclei & cytoplasm uptake of various labeled iron cpds. (Rus))

VEYNEROV, I.B.; KHUCHAKOVA, F.A.; PODGAYETSKAYA, M.G.

Effect of various factors on the rate of uptake of radioactive sulfur (S-35) in the skin and wool of animals. Vest.derm.i ven. 34 no.8:11-14 '60. (MIRA 13:11)

1. Iz kliniko-eksperimental'noy laboratorii otdela tuberkuleza kozhi (zav. - prof. I.B. Veynerov) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni F.G. Yanovskogo (dir. - dotsent A.S. Mamolat).
(SKIN) (WOOL) (SULFUR METABOLISM)

VEYNEROV, I.B., prof.; KRUCHAKOVA, F.A., kand.biolog.nauk; PODGAYETSKAYA, M.G., kand.med.nauk

Treatment of alopecia seborrhoeica with vitamins. Vest.derm. i ven. no.8:51-54 '62. (MIRA 15:9)

1. Iz otdela kozhno-venerologicheskogo tuberkuleza (zav. - prof. I.B. Veynerov) Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni F.G. Yanovskogo (dir. - dotsent I.S. Mamolat).

(BALDNESS) (VITAMIN THERAPY)

VEYNEROV, I.V.; KRUCHAKOVA, F.A.; PODGAYETSKAYA, M.G.

Content of some vitamins and 17-ketosteroids in the urine of seborrhea patients. Vop. med. khim. 8 no.5:482-486 S-O'62 (MIRA 17:4)

1. Otdel kozhnogo tuberkuleza Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni F.G. Yanovskogo, Kiyev.

VEYNEROV, I.B.; KRUCHAKOVA, F.A.; PODGAYETSKAYA, M.G.

Riboflavine and 17-ketosteroid metabolism in patients with seborrhea. Vop. pit. 22 no.1:28-32 Ja-F'63 (MIRA 16:11)

1. Iz otdela kozhnogo tuberkuleza Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza imeni F.G.Yanovskogo, Kiyev.

*

VEYNEROV, I.B., prof.; KRUCHAKOVA, F.A., kand. biol. nauk; CHERKASSKAYA, Ye.I.

Vitamin metabolism and excretion of 17-ketosteroids in cutaneous tuberculosis treated with tubazid. Vest. derm. i ven. no.1: 22-28 '65. (MIRA 18:10)

1. Klinika tuberkuleza kozhi Ukrainskogo nauchno-issledovatel'skogo instituta tuberkuleza i grudnoy khirurgii imeni Ynovskogo (dir.- dotsent A.S. Mamolat), Kiyev.

KRUCHAROVA, F.I.; [illegible]KO, O.P.

Effect of prolonged use of antibacterial drugs on the pantothenic acid metabolism in experimental tuberculosis in guinea pigs. Probl. tub. no.2:70-75 '65. (MIRA 18:12)

1. Ukrainskiy nauchno-issledovatel'skiy institut tuberkuleza i grudnoy khirurgii imeni F.G.Yanovskogo (direktor - dotsent A.S.Mamolat), Kiyev.

PANFILOVA, I.A.; SENKEVICH, R.L.; KRUCHKOVICH, G.I., kand. fiz.-matem. nauk dots., red.

[Textbook for a course in higher mathematics] Uchebnoe posobie po kursu vysshei matematiki. Moskva, Vses. zaochnyi energ. in-t. Pt. 4. 1962. 138 p. (MIRA 19:1)

25303 S/081/61/000/016/006/040
B118/B101

15.2650
24,7500 (1160)

AUTHORS: Freydenfel'd, E. Zh., Fritsberg, V. Ya., Kruchan, Ya. Ya.

TITLE: Effect of addition of SiO_2 on the properties of polycrystalline $BaTiO_3$

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 16, 1961, abstract 16B250 (Uch. zap. Rizhsk. politekhn. in-ta, 2, 1959, 115-127)

TEXT: Addition of SiO_2 to $BaTiO_3$ (I) causes a decrease of the parameters and the tetragonality of the elementary cell, irrespective of the method of addition. This is obviously related to the formation of a solid solution of the substitution type. Of the new phases, the compound $BaTiSiO_5$ is formed first of all. Addition of SiO_2 shifts the Curie point of I by 25 - 30°C toward high temperatures, which also confirms the formation of a solid solution. Addition of SiO_2 lowers the dielectric constant and changes the parameters of the dielectric hysteresis loop. The residual

Card 1/2

28303 S/081/61/000/C16/006/040
B118/B101

Effect of addition of SiO_2 ...

polarization is reduced while the coercive force is increased. If small amounts are added, the spontaneous polarization tends to increase, whereas it tends to decrease at high concentrations. [Abstracter's note: Complete translation.]

Card 2/2

85886

S/048/60/024/011/022/036
B006/B060

24,7500 (1043, 1160)
24,7800 (1144, 1162)

AUTHORS: Fritsberg, V. Ya., Freydenfel'd, E. Zh., and Kruchan, Ya. Ya.

TITLE: Dielectric Properties and Structure of Solid Solutions of the $PbTiO_3$ - $SrTiO_3$ - "$Bi_{2/3}TiO_3$" System

PERIODICAL: Izvestiya Akademii nauk SSSR. Seriya fizicheskaya, 1960, Vol. 24, No. 11, pp. 1387-1390

TEXT: This is the reproduction of a lecture delivered at the Third Conference on Ferroelectricity which took place in Moscow from January 25 to 30, 1960. The authors studied the transition of the $PbTiO_3$ - $SrTiO_3$ - "$Bi_{2/3}TiO_3$" system from the typical seignettoelectric state into a state with relaxation polarization. The initial materials used for the preparation of the ceramic specimens were PbO, Bi_2O_3, TiO_2, and $SrCO_3$. The analyses of the specimens were accurate within 1.5% by weight. ε and $\tan\delta$ were measured by the usual methods in a wide frequency and temperature

Card 1/4

Dielectric Properties and Structure of Solid Solutions of the $PbTiO_3$ - $SrTiO_3$ - "$Bi_{2/3}TiO_3$" System

S/048/60/024/011/022/036
B006/B060

range, the seignettoelectric properties were studied at 50 cps, the X-ray analyses were made with an X-ray diffractometer of the type УРС-50И (URS-50I). The determination of the lattice parameters by the counting technique was accurate within ±0.002 kX. Two sections were examined in the ternary system (Fig. 1), wherein the ration of $SrTiO_3$ and $PbTiO_3$ were constantly equal to 7:3 (A) and 4:6 (B), while the "$Bi_{2/3}TiO_3$" concentration varied from one compound to another. It was established by X-ray analysis that there actually is a range of solid solutions in the system and that the compounds of section A have a pseudocubic structure under only slight additions, while those relative to B are tetragonal (at room temperature). The lattice parameters of different compositions are given. Fig. 2 shows $\varepsilon(t)$ and Fig. 3 shows ε and $\tan\delta$ as functions of temperature t for compounds of section A and section B for different "$Bi_{2/3}TiO_3$" additions of 1 - 3 and 0 - 40 mole%. The following rules were established: 1) An increase of the "$Bi_{2/3}TiO_3$" content on a variation of

Dielectric Properties and Structure of Solid Solutions of the $PbTiO_3$ - $SrTiO_3$ - "$Bi_{2/3}TiO_3$" System

S/048/60/024/011/022/036
B006/B060

the ratio of $PbTiO_3$ and $SrTiO_3$ gives rise to an increase of the lattice tetragonality, while the phase transition shifts toward higher temperatures. 2) If there is more $PbTiO_3$ than $SrTiO_3$, the seignettoelectric character of the initial substance is basically conserved under an increase of the "$Bi_{2/3}TiO_3$" addition. 3) If, on the contrary, $SrTiO_3$ prevails, the introduction of the addition will give rise both to a shift of the phase transition to higher temperatures and to an enlargement of the phase transition region; at the same time, a relaxation can be observed in the dielectric polarization. The increase of lattice tetragonality on the introduction of the addition can be explained by the high polarizability of the bismuth ion. The authors finally thank G. A. Smolenskiy for having proposed the subject and for his supervision, as well as I. Ye. Myl'nikova for advice given in regard of the preparation of specimens. There are 3 figures and 6 references: 5 Soviet and 1 Japanese.

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85886

Dielectric Properties and Structure of Solid Solutions of the $PbTiO_3$ - $SrTiO_3$ - "$Bi_{2/3}TiO_3$" System

S/048/60/024/011/022/036
B006/B060

ASSOCIATION: Latviyskiy gos. universitet im. Petra Stuchki (Latvian State University imeni Petr Stuchki). Rizhskiy politekhnicheskiy institut (Riga Polytechnic Institute)

Card 4/4

S/058/63/000/002/042/070
A062/A101

AUTHORS: Freydenfeld, E. Zh., Fritsberg, V. Ya., Kruchan, Ya. Ya.

TITLE: Dielectric properties and structure of solid solutions in the $CaTiO_3$ - $Bi_{2/3}TiO_3$ system

PERIODICAL: Referativnyy zhurnal, Fizika, no. 2, 1963, 64, abstract 2E420 ("Uch. zap. Rizhsk. politekhn. in-t", 1962, v. 6, 251 - 255)

TEXT: The existence of solid solutions was observed in the $CaTiO_3$ - $Bi_{2/3}TiO_3$ system for a content of $Bi_{2/3}TiO_3$ up to 25 - 30 mol%. In the indicated ceramic solid solutions, the water absorption, the lattice constant, the roentgenographic density, the microhardness and the dielectric properties were investigated. It is shown that at room temperature the crystal lattice is cubic, and that the lattice constant increases with the increase of the content of $Bi_{2/3}TiO_3$. The dielectric permittivity ε of the solid solutions increases as the content of the second component increases (from 150 to 220), and also as the temperature decreases. No maximum of ε and no hysteresis loops were observed down to the temperature of liquid air (the ferroelectric phase transition is possible at lower temperatures).

Card 1/2

Dielectric properties and structure of...

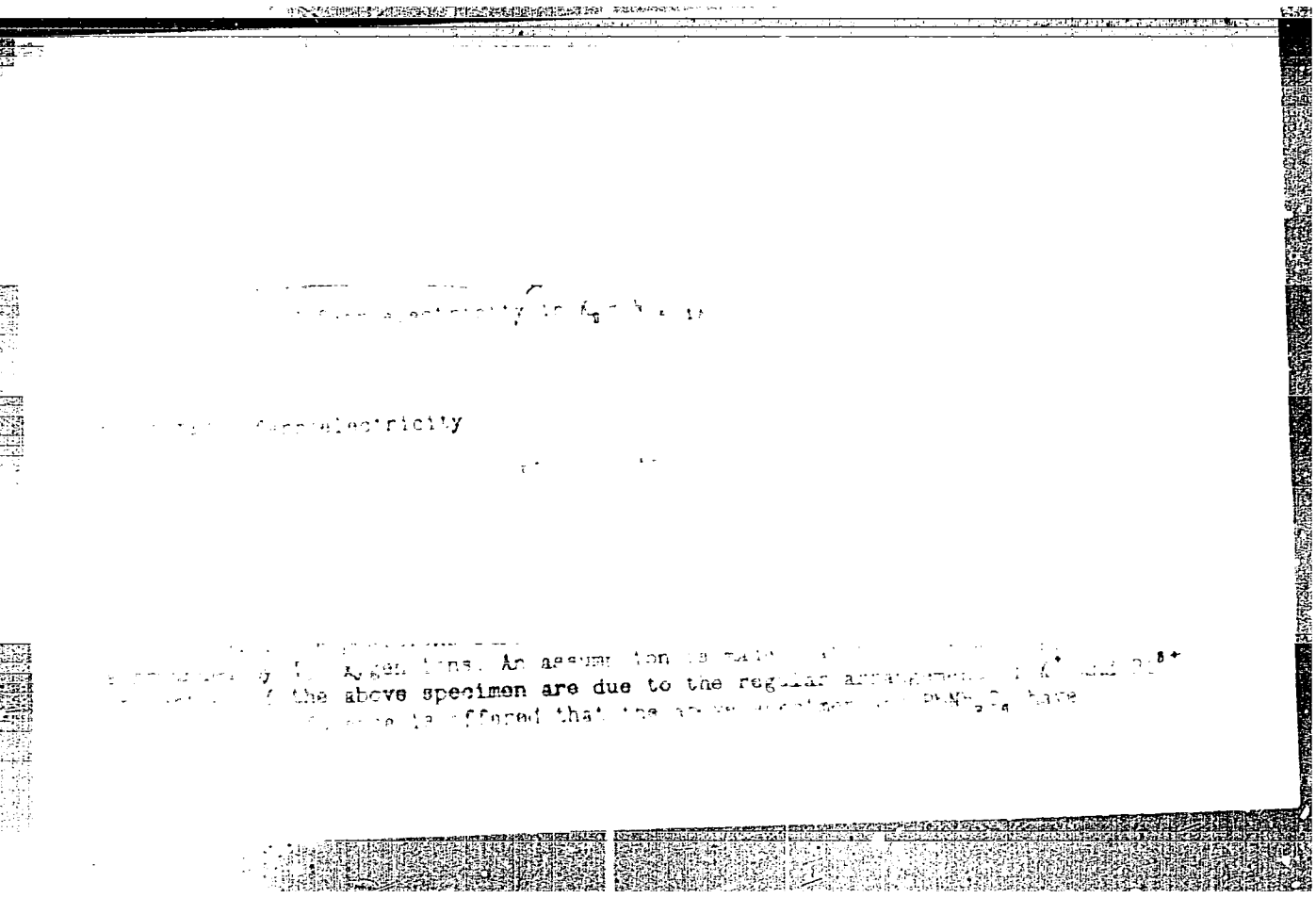
S/058/63/000/002/042/070
A062/A101

Relaxation phenomena were not observed in the frequency range from 200 cps to 200 kc and at temperatures from -170 to +150°C.

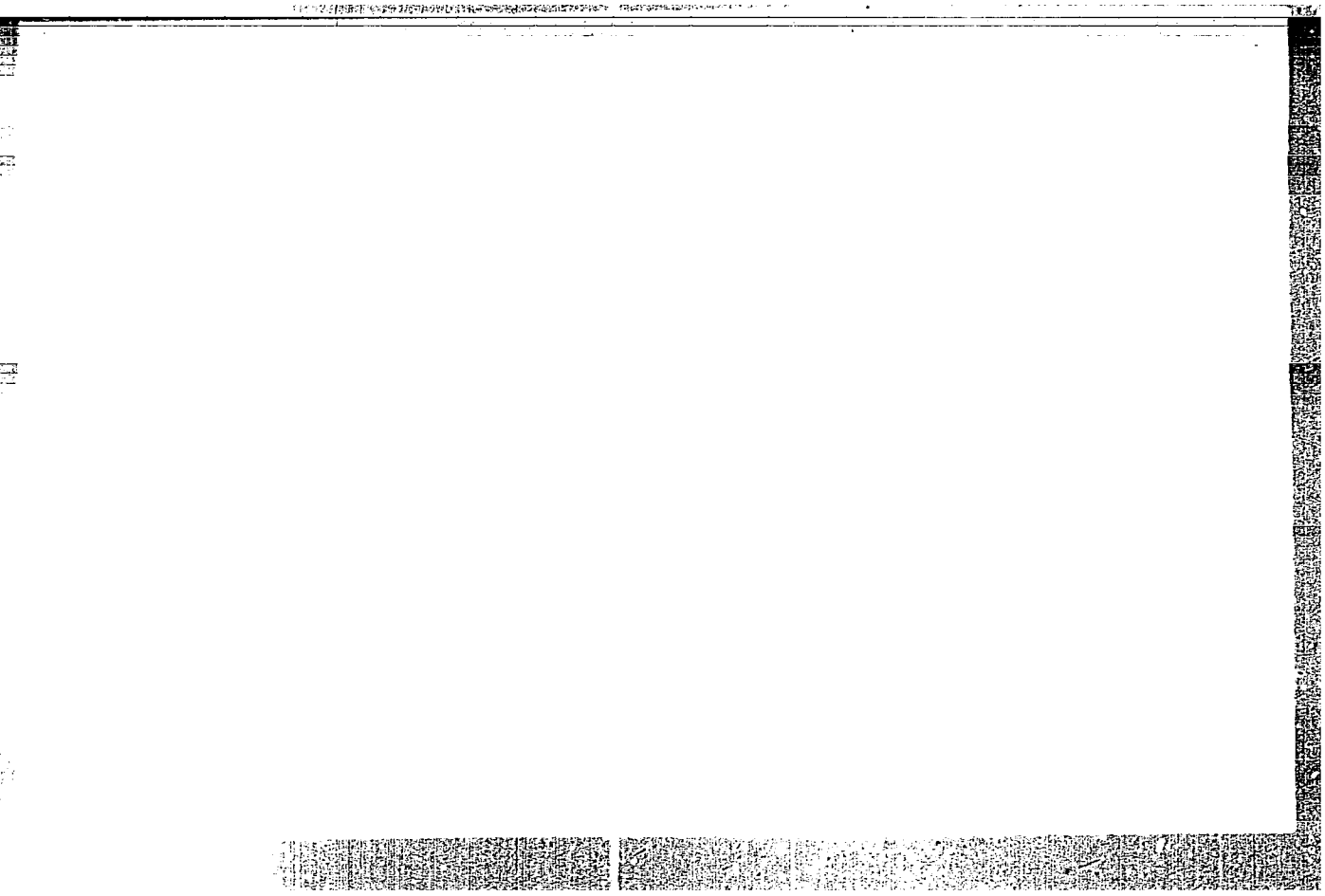
V. Petrov

[Abstracter's note: Complete translation]

Card 2/2



the above specimen are due to the regular



APPROVED FOR RELEASE: 06/19/2000 CIA-RDP86-00513R000826710011-5"

Krueger, Y. Ya.

TITLE: Influence of ion substitution on the Curie temperature in some solid solutions based on $PbTiO_3$

SOURCE: Izv. AN LatvSSR. Ser. fiz. i tekhn. n., no. 4, 1964, 8-17

L [illegible]-65
ACCESSION NR: AR50[illegible]795

SUB CODE: SS

ENCL: 00

0

Card 2/2

S/0048/64/028/004/0691/0694

ACCESSION NR: AP4030645

AUTHOR: Kruchan, Ya.Ya.

TITLE: Some factors capable of influencing the Curie point of ferroelectric materials with the structure of potassium-tungsten bronze /Report, Symposium on Ferromagnetism and Ferroelectricity held in Leningrad 30 May to 5 Jun 1963/

SOURCE: AN SSSR. Izv. Ser.fiz., v.28, no.4, 1964, 691-694

TOPIC TAGS: ferroelectricity, potassium tungsten bronze, lead metaniobate

ABSTRACT: The values of the Curie point, the radius and the polarizability of the substituted ion, and the lattice constants are tabulated for solid solutions of 21 different materials in $PbNb_2O_6$. The data for five of the solutions were obtained by the author, and the rest were assembled from various sources. Except in one case, the tabulated data relate to solutions with a concentration of 80% $PbNb_2O_6$. The materials discussed can all be represented by the general formula $Pb_{1-x}A_y(Nb_{1-x}B_x)_2O_6$. There are two types of A sites: those in the perovskite type regions of the lattice, having coordination number 8 (A8 sites), and those between these regions, having coordination number 10 (A10 sites). There are two A8 sites and four A10 sites in the

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ACCESSION NR: AP4030645

unit cell of $PbNb_2O_6$, of which only five are occupied (by lead ions). The quantity y-x in the general formula for the solutions investigated characterizes the degree to which the A sites are filled. The tabulated data are discussed with a view to ascertaining what factors influence the ferroelectricity of materials having the potassium-tungsten bronze structure and the following conclusions are reached: 1) A necessary condition for the appearance of spontaneous polarization due to monoclinic distortion of the unit cell is a well developed covalent bond between the oxygen ions and the ions on the AS sites. 2) The ferroelectric phenomena occur in the perovskite type regions of the lattice, and the ions outside these regions are of little importance. 3) The Curie temperature increases with increasing charge and polarizability of the B ions, provided these are not tightly held in the oxygen octahedra. Orig.art.has: 1 table.

ASSOCIATION: Latviyskiy gosudarstvenny*y universitet im.P.Stuchki (Latvian State University)

SUBMITTED: 00 DATE ACQ: 30Apr64 ENCL: 00

SUB CODE: EM NR REF SOV: 010 OTHER: 008

Card 2/2

L 7836-66 EWT(m)/EWP(t)/EWP(b) IJP(c) JD

ACC NR: AP5028117 SOURCE CODE: UR/0048/65/029/011/2046/2049

17

AUTHOR: Freydenfel'd, E.Zh.; Yanson, G.D.; Kruchan, Ya.Ya.

ORG: Riga Polytechnic Institute (Rizhskiy politekhnicheskiy institut); Latvian State University (Latviyskiy gosudarstvennyy universitet)

TITLE: Ferroelectric properties of solid solutions of bismuth and lanthanum ferrites in lead metaniobate / Report, Fourth All-Union Conference on Ferroelectricity held at Rostov-on-the Don 12-16 September 1964 /

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 11, 1965, 2046-2049

TOPIC TAGS: ferroelectric material, solid solution, bismuth, lanthanum, ferrite, lead, niobate, dielectric constant, dielectric loss, Curie point, lattice parameter

ABSTRACT: Continuing their earlier work on lead metaniobate based heterovalent solid solutions, the authors have investigated the ferroelectric and other properties of the $PbNb_2O_6$ - $Bi_2Fe_2O_6$ and $PbNb_2O_6$ - $La_2Fe_2O_6$ systems in order to determine the effect of replacing divalent lead by trivalent bismuth and lanthanum, and pentavalent niobium by trivalent iron on the ferroelectric Curie point and other properties of lead metaniobate and to explore the possibility of obtaining materials with peculiar dielectric and magnetic properties. The solid solutions were synthesized by solid state reaction of the oxides with double roasting in air. After a preliminary 1 hour heating at 1100° the bismuth ferrite solutions were held for 30 minutes at 1240-1270°,

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L 7836-66

ACC NR: AP5028117

and the lanthanum ferrite solutions at 1280-1300°. X-ray studies showed that in both systems solid solutions with the potassium-tungsten bronze structure were formed only over a narrow range (up to about 10 mole %) of ferrite content. The ceramic properties were studied, the lattice parameters were measured, dilatometric measurements were made, and the temperature dependences of the dielectric constant and the dielectric loss were investigated with experimental techniques that have been described elsewhere by E.Zh.Freydenfel'd, G.D.Yanson, and O.S.Maksimova (Izv. AN LatvSSR Ser. khim., 4, 345 (1963)). Thermographic measurements with a Kurnakov pyrometer revealed the transformation of PbO from one modification to another at 280-350° and the formation of $PbNb_2O_6$ at 530-850°. All the investigated solid solutions were ferroelectrics; the Curie point fell rapidly in both systems with increasing ferrite content. The temperature at which the dielectric constant peaked (the Curie point) did not vary with the measuring frequency over the range from 4 to 200 kilocycle/sec. The dielectric loss remained large below the Curie point, owing to the high electric conductivity. Orig. art. has: 4 figures and 1 table.

SUB CODE: SS, EM SUBM. DATE: 00/ ORIG. REF: 008 OTH REF: 005

Card 2/2 bpp

FREYDENFEL'D, E.Ya. [Freidenfelds, E.]; VANSON, G.Ya. [Vanss, G.]; KRUGHAN, Ya.Ya.

Ferroelectric properties of solid solutions of bismuth ferrites and lanthanum in lead metaniobate. Izv. AN SSSR. Ser. fiz. 29 no.11:2046-2049 N '65. (MIRA 18:11)

1. Rizhskiy politekhnicheskiy institut i Latviyskiy gosudarstvennyy universitet.

ACC NR: AP7011846 SOURCE CODE: UR/0371/66/000/006/0040/0044

AUTHOR: Riyekstin', T. P. -- Riekstinsh, T.; Medovoy, A. I.; Kruchan, Ya. -- Kruchan, J.; Borman, K. Ya.

ORG: Latvia State University im. P. Stuchka (Latviyskiy gosudarstvennyy universitet)

TITLE: Piezoelectric properties of Na sub 0.5 Bi sub 4.5 Ti sub 4 O sub 15

SOURCE: AN LatSSR. Izvestiya. Seriya fizicheskikh i tekhnicheskikh nauk, no. 6, 1966, 40-44

TOPIC TAGS: piezoelectric property, piezoelectric ceramic, Q factor

SUB CODE: 20

ABSTRACT: A discussion of the piezoelectric properties of ceramic specimens of the ferroelectric $Na_{0.5}Bi_{4.5}Ti_4O_{15}$. It is shown that samples of this composition have stable piezoelectric properties over a wide temperature range. The piezoelectric properties are retained over 500°C. A calculation formula is presented for determining the difference in resonant and anti-resonant frequencies of the piezo-resonator in case of low mechanical Q-factor. These piezoceramics practically do not age. The authors thank V. Ya. Fritsberg for his interest in the work and D. A. Dzalbe for synthesizing the samples. Orig. art. has: 3 figures and 5 formulas. [JPRS: 40,450]

Card 1 1

IONESKU-STOYAN, P.; FAYT, I.; STANCHIU, N.; SAVOPOL, Ye.; KRUCHANU, I.
(Bukharest)

Mechanization of some technical processes in pharmacy. Apt. delo 11 no.1:75-79 Ja-F '62. (MIRA 15:4)
(PHARMACY--EQUIPMENT AND SUPPLIES)

KRUCHEANU, Ye., Cand Tech Sci -- (diss) "Production and properties of some semiconductor compounds of the A^{II} B^{VI}." Moscow, 1960. 10 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Krasnoyar Inst of Non-ferrous Metals im M. I. Kalinin, Problems Laboratory -- "Pure Metals, Metallurgical Compounds, and Semiconductors"); 200 copies; price not given; (KL, 26-60, 136)

KRUCHENAU, Ye.; CHISTYAKOV, Yu.D.

Some characteristics of the structure of zinc selenide crystals.
Kristallografiia 5 no.3:364-368 My-Je '60. (MIRA 13:8)

1. Krasnoyarskiy institut tsvetnykh metallov im. M.I.Kalinina.
(Zinc selenide)

S/081/62/000/009/003/075
B177/B138

AUTHORS: Chistyakov, Yu. D., Krucheanu, Ye.

TITLE: The crystal structure of zinc telluride

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 9, 1962, 29, abstract 9B175 (Rev. phys. Acad. RPR, v. 6, no. 2, 1961, 211-217)

TEXT: Monocrystals of ZnTe (I) were synthesized and subjected to X-ray investigation (powder, Laue and rotation methods, λ Cu). The specimen used was the powder I, obtained either by pulverizing the direct product of the synthesis or hexagonal crystals grown from the gaseous phase. In the former case, calculation of the Debyegrams showed that the structure of I belongs to the sphalerite type with a lattice parameter of 6.089 Å. In the latter case weak reflections from the hexagonal phase were detected on the Debyegrams, having a lattice of the würtzite type and periods: a=4.27, c=6.99 Å. It was thus established that I is characterized by dimorphism. Consequently this compound does not form an exception to the

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S/081/62/000/009/003/075
B177/B138

The crystal structure of zinc telluride

general series of compounds of the type $A^{II}B^{VI}$. The reason for the presence of only very weak hexagonal type reflections on the Debyegrams is that pulverization of crystals of the hexagonal modification of I converts them to the cubic modification (by analogy with ZnS). It is suggested that the formation of a particular modification is determined by the method used for obtaining the crystals, in particular by the temperature at which the process occurs, and also by the purity of the constituent elements. [Abstracter's note: Complete translation.]

Card 2/2

ACCESSION NR: AP4043190 S/0070/64/009/004/0537/0540

AUTHOR: Krucheanu, Ye.; Nikulesku, D.; Vanku, A.

TITLE: Growth from gas phase and study of mercury selenide and telluride single crystals

SOURCE: Kristallografiya, v. 9, no. 4, 1964, 537-540

TOPIC TAGS: single crystal growth, mercury selenide crystal, mercury telluride crystal, vapor phase growth, $A^{II}B^{VI}$ compound, crystal structure, crystal habit, crystal lattice constant

ABSTRACT: Methods for growing mercury selenide (HgSe) and mercury telluride (HgTe) crystals from the gas phase have been developed, and their crystalline structure has been determined. The necessity for such a study came as a result of applications of HgTe and HgSe in various semiconductor devices and contradictory information from the literature on their crystalline structure. Two crystal growth methods are described: 1) a dynamic one, consisting of the transport of compound vapors in a hydrogen or argon stream from the sublimation point to the crystallization point with a temperature gradient between

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ACCESSION NR: AP4043190

the two points; and 2) a static method, consisting of the sublimation of compound vapors and their crystallization within an evacuated and sealed quartz ampul, with a 100C temperature gradient. Both methods delivered only HgSe single crystals. The HgTe crystals obtained contained Te in excess of the stoichiometric composition. All crystals were prismatic with a hexagonal cross section. Twin HgSe crystals and hollow, tubular HgSe and HgTe crystals were observed. X-ray studies indicated that all HgSe and HgTe crystals belong to the cubic system, with the sphalerite-type lattice. The lattice constants were determined. The hexagonal modification of HgSe and HgTe previously observed under high pressure is considered to be of the cinnabar-type and not of a wurtzite-type structure. The authors conclude that the general rule observed concerning the wurtzite-type lattice formation in the $A^{II}B^{VI}$ compounds is not applicable to HgSe and HgTe. Orig. art. has: 4 figures and 1 table.

ASSOCIATION: Rumy*niya, Institut fiziki (Rumanian Institute of Physics)

Card 2/3

KRUCHEANU, Ye.[Cruceanu, E.]; NIKULESKU, D. [Niculescu, D.]; VANKU, A. [Vancu, A.]

Study of mercury selenide and telluride single crystals grown from the gaseous phase. Kristallografiia 9 no.4:537-540 Jl-Ag '64. (MIRA 17:11)

1. Institut fiziki, Rumyniya.

L 2522-66 EWT(l)/EWT(m)/T/EWP(t)/EWP(b)/EWA(c) IJP(c) JD/GG
ACCESSION NR: AP5014585 UR/0181/65/007/006/1808/1812

AUTHOR: Krucheanu, Ye.; Nikulesku, D.; Nistor, N.; Stamatesku, I.; Ionesku-B Ahor, S.

TITLE: Some properties of HgTe single crystals grown from solutions

SOURCE: Fizika tverdogo tela, v. 7, no. 6, 1965, 1808-1812

TOPIC TAGS: mercury compound, telluride, single crystal growing, crystal lattice structure, electric conductivity, Hall constant

ABSTRACT: The authors describe a method never employed before of growing single crystals of HgTe from dilute solutions, aimed at eliminating previously encountered difficulties with the production of single crystals of stoichiometric composition. The single crystals were obtained from solutions of 5 — 10 at . % of tellurium in mercury by very slow cooling from temperatures above 450C. Crystals up to 20 x 12 x 1 mm could be obtained by this method. The shape of the crystals depend on the cooling rate. An x-ray structural analysis has shown that the HgTe single crystals have a structure of the sphalerite type with a lattice constant a = 6.466 ± 0.002 A, corresponding to that calculated on the basis of data on the tetrahedral radii of the Hg and Te atoms. Measurements of the electric properties.

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L 2522-66

ACCESSION NR: AP5014585

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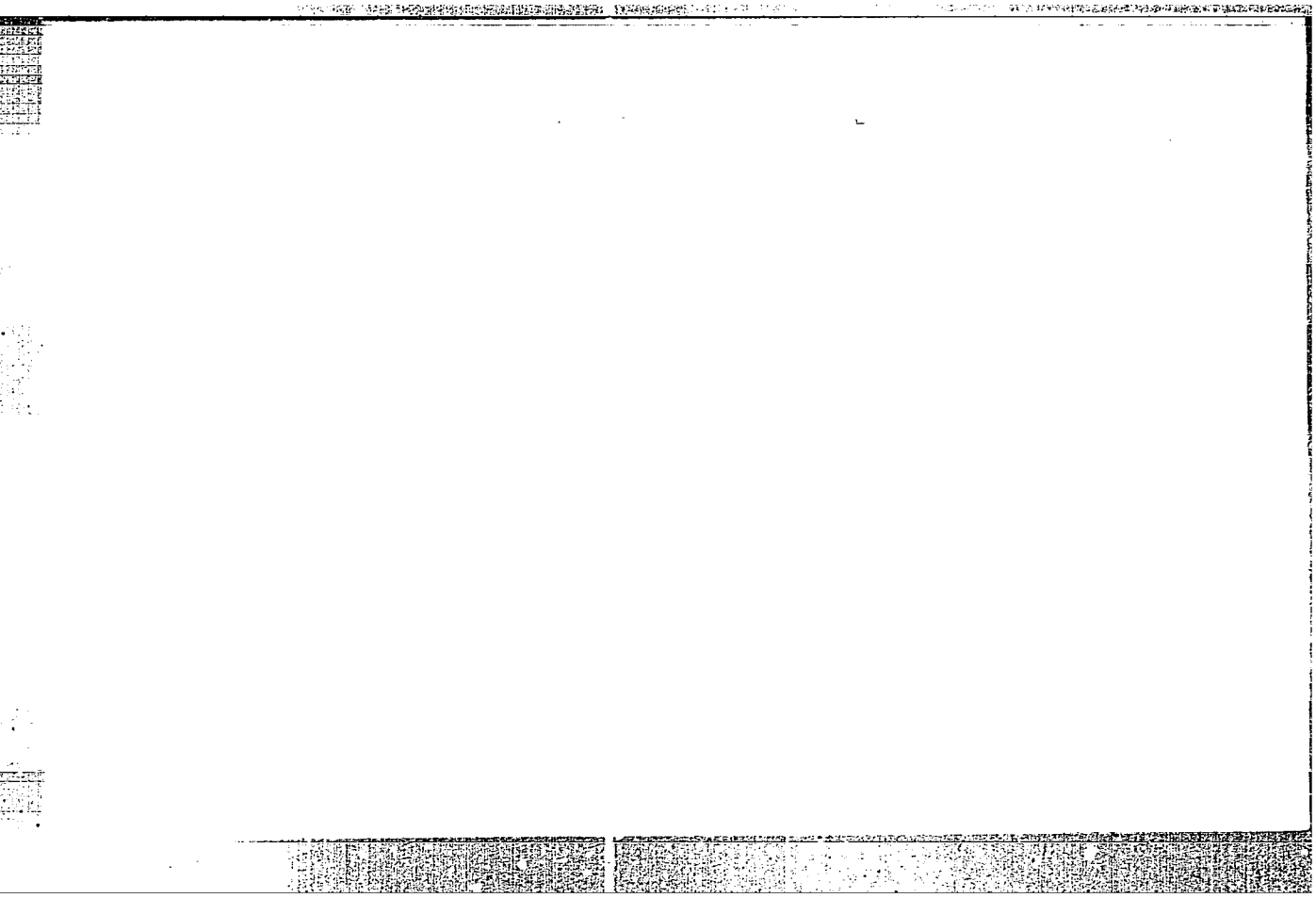
have shown that the decrease in the carrier mobility is slower than in samples obtained by other methods. This is attributed to the high degree of perfection of the structure of the obtained samples. Measurements were also made of the temperature dependences of the conductivity and of the Hall constant. Doping the HgTe crystals with silver, copper, and other various impurities makes it possible to obtain p-type semiconductor crystals. Orig. art. has: 6 figures and 1 table.

ASSOCIATION: Physics Institute, Romanian Academy of Sciences, Bucharest

SUBMITTED: 16Jan65 ENCL: 00 SUB CODE: SS

NR REF SOV: 003 OTHER: 009

Card 2/2



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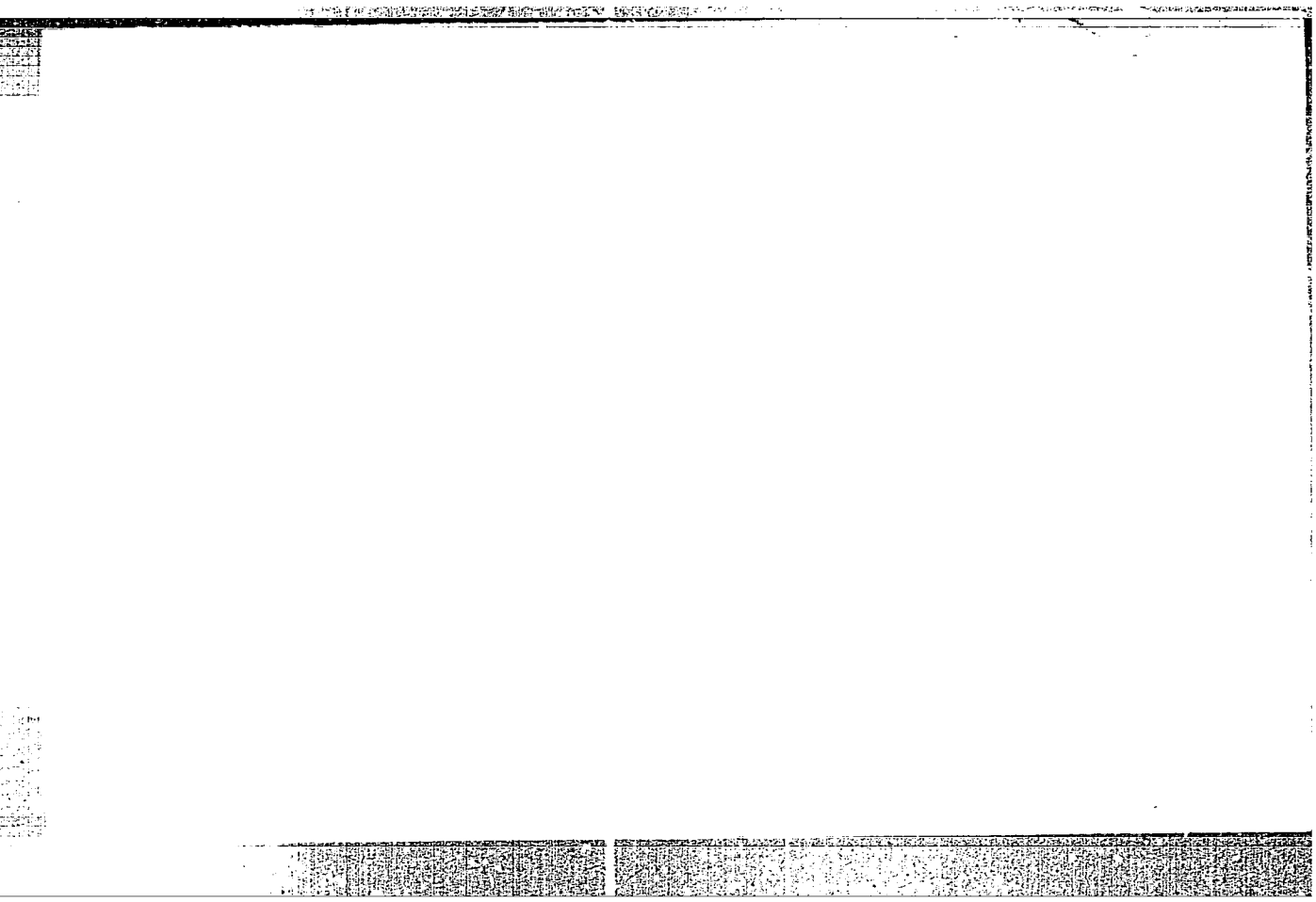

L 27469-66 EWT(l)/EWP(e)/EWT(m)/EWP(j)/T/EWP(t)/EWP(k) IJP(c) JD/WW/HW/GG/
ACC NR: AP6007845 RM/WH SOURCE CODE: UR/0120/66/000/001/0213/0214

AUTHORS: Ionesku-Buzhor, S.; Krucheanu, Ye.

ORG: Institute of Physics AN RNR, Bucharest (Institut fiziki AN RNR)

TITLE: Setup for drawing dendrite crystals

SOURCE: Pribory i tekhnika eksperimenta, no. 1, 1966, 213-214

TOPIC TAGS: fiber crystal, dendrite, germanium, single crystal growing

ABSTRACT: Apparatus is described for drawing germanium dendrites with mirror-smooth finish, such as are needed for semiconductor devices with improved characteristics (Fig. 1). The apparatus has a different constructure and different properties than those hitherto reported in the literature. The grown dendrites are of uniform dimension and length and have a low dislocation density. The apparatus can operate at vacuum 10^{-5} 5 x 10^{-6} Torr. The germanium dendrites obtained were 2 - 8 mm thick of length constant within 0.2 - 0.8 mm. The apparatus can be used to draw dendrites of other semiconductor materials without modification. Orig. art. has: 1 figure.

SUB CODE: 20/ SUBM DATE: 29Jan65/ ORIG REF: 001/ OTH REF: 003

Card 1/2 UDC: 548.552

L 27469-66

ACC NR: AP6007845

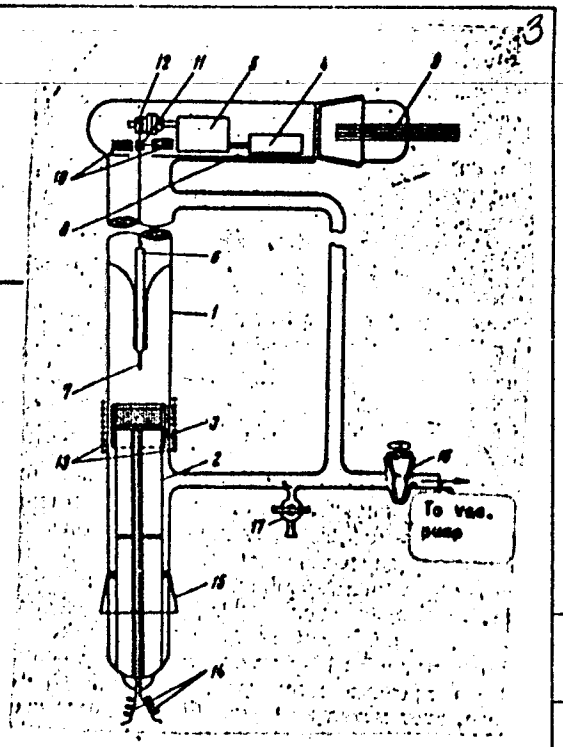

Fig. 1. Diagram of installation for drawing dendrite crystals. 1 - Quartz cylinder, 2 - quartz base, 3 - graphite crucible, 4 - electric motor, 5 - reduction gear, 6 - quartz rod, 7 - primer 8 - teflon plates, 9 - tungsten lead, 10 - coil, 11 - ring, 12 - roller, 13 - resistance oven, 14 - thermocouple, 15 - glass joint, 16 - petcock, 17 - petcock.

Card 2/2 BLO

L 20/26-66 EWT(l)/EWT(m)/ETC(f)/ETC(m)/T/EWP(t) IJP(c) RDW/JD/JG/GS

ACC NR: AP6011473 SOURCE CODE: UR/0070/66/011/002/0305/0310

AUTHOR: Krucheanu, Ye.; Nistor, N.; Nikulesku, D.

ORG: Institute of Physics of the RNR Academy, Bucharest (Institut fiziki Akademii RNR)

TITLE: Growing of HgSe single crystals from melts and some of their properties

SOURCE: Kristallografiya, v. 11, no. 2, 1966, 305-311

TOPIC TAGS: mercury compound, selenide, single crystal growing, crystal lattice dislocation

ABSTRACT: The authors propose a new method of growing HgSe single crystals, consisting of slowly cooling from dilute solutions of selenium in mercury, with selenium concentration 4--8 at.% from 670C. It differs from earlier methods in the low percentage of the selenium in the melt. The procedure yielded single-crystal platelets, most frequently in rhombic or triangular form, with thickness 0.8--1 mm and length 10--15 mm. X-ray investigations have shown the most developed surfaces of these plates to be the planes with indices (111). The crystals had a low dislocation density, and had electric properties similar to those obtained by the Bridgman method. It is concluded from this similarity that no matter how the crystals are grown, they contain an excess of mercury atoms. This is in contraxt with the behavior of HgTe, whose crystals always grow with an excess of tellurium atoms. Tests with addition of silver (1% of the total selenium amount) have shown that silver is not a suitable

Card 1/2 UDC: 548.5

L 35750-66

ACC NR: AP6011473

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doping impurity because of its very low solubility in mercury at low temperatures. The fact that the method described makes it possible to grow crystals of sufficiently large size, with low dislocation density, and with mirror surfaces which require no polishing or etching, makes this method very promising, especially when the sensitivity of the surface of the samples to mechanical or chemical working leads to inaccurate measurements of the reflection. The possible diagram of state of such a crystal is discussed. The authors thank M. Nikulesku for help with the measurement of the electric properties of the HgSe crystals, and also I. Stamatesku and S. I. Ionescu-Buzhor for valuable discussions. Orig. art. has: 8 figures.

SUB CODE: 20/ SUBM DATE: 12May65/ ORIG REF: 001/ OTH REF: 005/
SOV REF: 005

Card 2/2

KRUCHEK, M.P.

Method for calculating the forces of rotation of weak optically active transitions. Opt. i spektr. 17 no.4:545-550 O '64.
(MIRA 17:12)

S/051/60/009/004/008/034
E201/E191

AUTHORS: Vol'kenshteyn, M.V., and Kruchek, M.P.

TITLE: Calculation of the Optical Activity of Molecules

PERIODICAL: Optika i spektroskopiya, 1960, Vol 9, No 4, pp 467-471

TEXT: A theoretical calculation of the optical activity is illustrated in the case of 3-methylcyclopentanone. The calculation was a quantum-mechanical one and it showed that polarization interactions of constituent groups played the major role in the optical activity of molecules of 3-methylcyclopentanone type which contained one chromoform group and had no conjugated bonds. The paper is entirely theoretical. There are 2 figures and 13 references: 4 Soviet and 9 English.

SUBMITTED: February 5, 1960

Card 1/1

VOL'KENSHTEYN, M.V.; KHUCHEK, M.P.

Optical activity of amino acids. Zhur. strukt. khim. 2 no. 1:59-62 Ja-F '61. (MIRA 14:2)

1. Leningradskiy pedagogicheskiy institut im. A.I. Gertsena.
(Amino acids—Optical properties)

KRUCHEK, M.P.

Comparison of the contributions of strong and weak absorption bands in the optical rotation of some alicyclic ketones. Opt. i spektr. 17 no.5:794-796 N '64.

(MIRA 17:12)

L 1071-66 EWT(1)/T/EWA(h) IJP(c) AT

ACCESSION NR: AR5014412 UR/0058/65/000/004/E067/E067

SOURCE: Ref. zh. Fizika, Abs. 4E501

AUTHOR: Adirovich, E. I.; Kruchenetskiy, O. Ye.; Kurbanov, O. M.; Lunezhev, S. P.

TITLE: Using frequency-phase characteristics of impedance in the p-n junction for measuring short lifetimes

CITED SOURCE: Dokl. AN UzSSR, no. 10, 1964, 11-14

TOPIC TAGS: semiconductor diode, carrier lifetime, semiconductor research

TRANSLATION: A theoretical basis and experimental proof is given for the possibility of using the phase shift between the voltage across a diode and the current through it to measure short lifetimes in semiconductors. In contrast to previously developed methods, this method does not require establishment of limiting operating conditions for the diode (conditions for the current or voltage generator). The method facilitates the measurement of lifetimes less than 10^{-9} sec. An experimental check of the method is made on an electrical analog of a diode. A. Stepanova

SUB CODE: EC ENCL: 00

Card 1/1

KRUCHENETSKIY, Ye. (Tashkent); ZAYTSEV, V., inzhener-tekhnolog (Tashkent)

Dispatcher's tags on luggage. Grazhd. av. 19 no.4:19 Ap '62.
(MIRA 15:5)

1. Zamestitel' nachal'nika otdela perevozok Grazhdanskogo vozdushnogo flota, Tashkent (for Kruchenetskiy).
(Airplanes--Dispatching)

KRUCHENITSKIY, M.L., starshiy elektromekhanik; GUNTAREV, V.P., starshiy inzh.; LOBUR', I.G., starshiy elektromekhanik

Intercommunication system for ticket offices. Avtom. telem. i sviaz' 5 no.11:34-38 N '61. (MIRA 14:11)

1. Upravlencheskaya distantsiya signalizatsii i svyazi Yugo-Zapadnoy dorogi (for Khuchenitskiy). 2. Laboratoriya signalizatsii i svyazi Dal'nevostochnoy dorogi (for Guntarev). 3. Khabarovskaya distantsiya signalizatsii i svyazi Dal'nevostochnoy dorogi (for Lobur').
(Railroads--Communication systems)

KRUCHENOK, N.Y. (Akmolinskaya oblast')

Medial workers on virgin lands. Med.sestra 15 no.4:18 Ap '56.
(MLRA 9:7)

1. Zaveduyushchiy Kalininskim rayzdravotdelom.
(KALININ DISTRIC (AKMOLINSK PROVINCE)--MEDICIN, RURAL)

SMOLYANOV, G.A., inzhener; KRUCHER, G.N.

Methods of titanium surface scouring. TSvet.met. 29 no.5:94-96 My '56. (MLRA 9:8)

(Titanium--Metallurgy)

GRSYNOLIN, Nikolay Naumovich, kandidat tekhnicheskikh nauk; KRUCHER, Garal'd Nikolayevich, inzhener; PERLIN, I.L., professor, retsenzent; BELOV, A.F., inzhener, retsenzent; SHPOLYANSKIY, L.Ya., inzhener, retsenzent; RZHEZNIKOV, V.S., redaktor; KAMAYEVA, O.M., redaktor izdatel'stva; VAYNSHTEYN, Ye.B., tekhnicheskiy redaktor

[Production of sheets and strips from light-weight alloys] Proizvodstvo listov i lent iz legkikh splavov. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1957. 310 p. (MLRA 10:10)

(Rolling (Metalwork))

AUTHOR: Krucher, G.N. SOV/130-58-9-11/21

TITLE: Present State and Prospects for the Development of the Production Technology of Heavy Non-ferrous Metal Rolled Product (Sovremennoye sostoyaniye i perspektivy razvitiya tekhniki proizvodstva prokata tyazhelykh tsvetnykh metallov)

PERIODICAL: Tsvetnyye Metally, 1958, Nr 9, pp 53-58 (USSR)

ABSTRACT: The author describes the plants recently built in the USSR for flat rolling non-ferrous heavy metals. They are designed to deal with ingots weighing up to 1 ton at rolling speeds over 200 m/minute and are highly mechanized. He states that all new rolling mills being planned for the USSR are to be based on semi-continuous or continuous casting. Billets are heated in continuous oil or gas-fired furnaces; at one Soviet works an induction heater has been designed and the author recommends this for general adoption. At new Soviet works the hot rolling of copper alloys is to be based on highly mechanized reversing mills with an edging stand. In cold rolling the

Card 1/2 tendency is to deal with heavier (2-10 ton) coils by

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using butt welding and a series of new mills was designed and is being built in the USSR: the author tabulates their main characteristics, discusses their special features (including higher rolling speeds) and considers the corresponding re-heating furnaces. He mentions that work aimed at the replacement of visual inspection of sheet by automatic and remote methods based on ultrasonics, flying micrometers and television is in progress; mechanization of intra-mill transport is also under study. For most of his points in this article the author gives comparative information on American, and sometimes on European practice.
There is 1 table.

Card 2/2 1. Metals--Production 2. Rolling mills--Performance
3. Industrial engineering

KRUCHER, G.N.

Conference of rolling mill operators on nonferrous metalworking. (MIRA 11:5)
TSvet. met. 31 no.4:81-82 Ap '58.
(Rolling (Metalwork))
(Nonferrous metals)

S/136/60/000/012/008/010
E193/E183

AUTHORS: Boguslavskiy, I.M., Broydo, B.S., ~~Krueher,~~ G.N., and Tarshinov, V.I.

TITLE: Complex Investigation of a 3-Stand Tandem Mill for Continuous Cold Rolling of Copper Alloy Strip

PERIODICAL: Tsvetnyye metally, 1960, No. 12, pp. 66-74

TEXT: In contrast to rolling of steel, continuous rolling of copper-base alloys in a tandem mill is a comparatively recent innovation. Difficulties are still encountered in running this process because of a large number of interdependent factors which have to be controlled if satisfactory results are to be obtained. The object of the investigation described in the present paper was to establish the optimum operating conditions for continuous rolling of brass Л62 (L62) and Л 90 (L90) strip, and to obtain data required for complete automation of the process. The experimental work was carried out on a 3-stand tandem mill, manufactured at the Novo-Kramatorskiy mashinostroitel'nyy zavod (Novo-Kramatorsk Machine-Building Plant). Each stand consisted of a 4-high mill with the following characteristics:

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Complex Investigation of a 3-Stand Tandem Mill for Continuous Cold Rolling of Copper Alloy Strip

diameter of the working and backing rolls - 375 and 1000 mm respectively; length of the rolls - 1000 mm; diameter of the power-driven reeler - 500 mm. Each stand was driven by a motor ПВК90/40 (PVK90/40), 450 kW, 300-600 r.p.m., an МП14-14/3 (MP14-14/3), 150 kW, 400-1300 r.p.m. motor being used to drive the reeler. Rolling speeds of up to 150 m/sec were employed, the initial and the final thickness of the strip (400-800 mm wide) was 6 and 1 mm respectively. The following parameters of the process were studied: thickness of the strip leaving the 3-rd stand; pressure exerted by the mill on the rolls of each stand; tension in the strip between the stands and between the reeler and the 3-rd stand; speed of the rolls and speed of the inter-stand tensioning rollers; current in the circuit of the motors driving the rolls; voltage in the generator.
A quantitative relationship between the tension in the strip and its thickness was established. It was found that the increase in thickness of the leading and tail ends of the strip

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(which are rolled with no tension applied) can be avoided by reducing the distance between rolls by 0.2-0.3 mm during the corresponding stage. It was shown, also, that by varying the tension in the strip between the 2-nd and 3-rd stands, it is possible, in the case of brass L62, to adjust its thickness by 0.2-0.3 mm during the first rolling stage and by 0.1-0.15 mm during the second rolling stage. The results obtained indicate that by increasing the front and back tension in the strip, edge cracking can be avoided, or minimized. The specific power consumption in rolling brass L62 and L90 was determined, and curves were constructed illustrating the elastic formation of the rolls and plastic deformation of brass strip in the course of the process studied.
Acknowledgements are made to S. Alimov, Yu. Reyngol'd, and Yu. Uzenev, who participated in this work.

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Complex Investigation of a 3-Stand Tandem Mill for Continuous Cold Rolling of Copper Alloy Strip

There are 7 figures, 3 tables and 5 references: 4 Soviet and 1 English.

Card 4/4

SMIRYAGIN, A.P., kand. tekhn. nauk; DNESTROVSKIY, N.Z., inzh.; LANDIKHOV, A.D., inzh.; KREYNDLIN, N.N., kand. tekhn.nauk; KRUCHER, G.N., inzh.; GOLOVIN, V.A., kand. tekhn. nauk; URIN, B.L., inzh.; GOL'DREYER, V.N., inzh.; MILLER, L.Ye., kand. tekhn.nauk, red.; MISHARINA, K.D., red. izd-va; ATTAPOVICH, M.K., tekhn. red.

[Handbook on the working of nonferrous metals and alloys] Spravochnik po obrabotke tsvetnykh metallov i splavov. Pod red. L.E.Millera. Moskva, Gos. nauchno-tekhn. izd-vo lit-ry po chernoi i tsvetnoi metallurgii, 1961. 872 p. (MIRA 14:5)
(Nonferrous metals--Handbooks, manuals, etc.)
(Metalwork--Handbooks, manuals, etc.)

KRUCHER, G.N.; UZENEV, Yu.K., Prinimal uchastiye: MEYNGOL'D, O.Ya., laborant

Investigating the widening of brass during hot rolling. Trudy Giprotsvetmetobrabotka no.20:200-207 '61. (MIRA 15:2)
(Brass) (Rolling (Metalwork))

S/680/61/000/020/010/013
D205/D302

AUTHORS: Krucher, G. N. and Uzenev, Yu. K.

TITLE: Revealing productivity reserves of the three-cage cold-rolling mill tandem 1000

SOURCE: Moscow. Gosudarstvenny nauchno-issledovatel'skiy i proyektnyy institut obrabotki tsvetnykh metallov. Sbornik nauchnykh trudov. no. 20, 1961. Metallovedeniye i obrabotka tsvetnykh metallov i splavov, 208-217

TEXT: Two three-cage cold-rolling mills, tandem quarto 3750/1000 x 1000 mm, were put into industrial exploitation for the cold-rolling of copper and its alloys, in 1956 and 1958. The institute "Giprotsvetmetobrabotka" has for several years cooperated with the plants concerned in the establishing and perfectioning of the working regimes. A series of time-motion studies has been performed, and as the result of the recommendations plant B mill has raised its productivity more than 3-fold between 1956 and 1960, producing at present 3 times as much as the plant A mill. Nevertheless, ample pro-

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Revealing productivity reserves ...

ductivity reserves are still thought to exist. The present paper indicates the measures for revealing these reserves. The measures to be taken can be summarized as follows: Increasing the weight of the feed rolls up to 4 tons will double the productivity of the mill; improving the quality of the feed rolls by reducing the deviations from the standard dimensions; increasing the amount of the cooling emulsion 2 times; changing the winding drum to a stronger than the present one; reconstructing the conical unwinders and the feeding table before the first cage; automating the thickness regulation. All these measures will bring the non-ferrous metals cold-rolling mill to the productivity level of the ferroue metallurgy mills. There are 5 tables and 3 Soviet-bloc references.

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KRUCHER, G.N., referent

Manufacture of semifinished products from high-purity [from "Metallurgical Reviews," no.16, 1959]. TSvet. met. 34 no.2: 94-95 F '61. (MIRA 14:6)

(Chromium)

KREYNDLIN, Nikolay Naumovich; MILLER, L.Ye., kand.tekhn. nauk, retsenzent; KRUCHER, G.N., red.; MISHARINA, K.D., red. izd-va; MIKHAYLOVA, V.V., tekhn. red.

[Calculating on reductions during the rolling of nonferrous metals] Raschet obzhatii pri prokatke tsvetnykh metallov. Izd.2., perer. i dop. Moskva, Metallurgizdat, 1963. 407 p. (MIRA 16:5)
(Rolling (Metalwork)) (Nonferrous metals)

SHEVAKIN, Yuriy Fedorovich; RYTIKOV, Aleksandr Mikhaylovich; SEYDALIYEV, Fikrat Seydali-ogly; KRUCHER, G.N., red.; MISHARINA, K.D., red.izd-va; ISLENT'YEVA, P.G., tekhn.red.

[Production of nonferrous metal pipes; technological calculations] Proizvodstvo trub iz tsvetnykh metallov; tekhnologicheskie raschety. Moskva, Metallurgizdat, 1963. 355 p. (MIRA 16:10)

(Pipe mills) (Nonferrous metals)

STANCHIU, N. [Stancin, N.]; KRUCHIANU, I.; SAVOPOL, Ye.

Milling apparatus for drugstores. Apt. delo 10 no. 1:85-88 Ja-F '61. (MIRA 14:2)

1. Farmatsevticheskiy nauchno-issledovatel'skiy institut, Bukharest.

(MILLING MACHINERY)

KRUCHIN, A.N., elektromekhanik

Graphite lubricant protects from hoar-frost. Avtom., telem. i sviaz' 8 no.10:37 O '64. (MIRA 17:11)

1. Abdulinskaya distantsiya Kuybyshevskoy dorogi.